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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,145	07/03/2002	Nicole Zitzmann	P284934	6322

22428 7590 06/29/2005

FOLEY AND LARDNER  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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MITCHELL, GREGORY W

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



**Office Action Summary**

Application No.

10/031,145

Applicant(s)

ZITZMANN ET AL.

Examiner

Gregory W. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



### **DETAILED ACTION**

This Office Action is in response to the Application filed July 03, 2002. Claims 1-37 are pending and are subject to the restriction requirement as set forth herein.

#### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-13, 17-31 (each in part), drawn to a method of inhibiting morphogenesis of virus comprising the administration of an N-alkylated heterocycle.

Group II, claim(s) 1-2, 4-5, 7-15, 20-23 and 27-31 (each in part), drawn to a method of inhibiting morphogenesis of virus comprising the administration of an N-alkylated heteroaryl comprising 5 atoms (i.e. wherein n is 3).

Group III, claim(s) 1-2, 4-5, 7-15, 20-22 and 27-31 (each in part), drawn to a method of inhibiting morphogenesis of virus comprising the administration of an N-alkylated heteroaryl comprising 6 atoms (i.e. wherein n is 4).

Group IV, claim(s) 1-2, 4-16, 22-23 and 27-31 (each in part), drawn to a method of inhibiting morphogenesis of virus comprising the administration of an N-alkylated acyclic amine or aniline.

Group V, claim(s) 32-35, drawn to specific N-alkylated compounds.

Group VI, claim(s) 36 (in part), drawn to a pharmaceutical composition comprising an N-alkylated heterocycle.

Group VII, claim(s) 36 (in part), drawn to a pharmaceutical composition comprising an N-alkylated heteroaryl comprising 5 atoms (i.e. wherein n is 3).



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Group VIII, claim(s) 36 (in part), drawn to a pharmaceutical composition comprising an N-alkylated heteroaryl comprising 6 atoms (i.e. wherein n is 4).

Group IX, claim(s) 36 (in part), drawn to a pharmaceutical composition comprising an N-alkylated acyclic amine or aniline.

Group X, claim(s) 37, drawn to a method of manufacture.

The inventions listed as Groups I-X do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

First, it is noted that the claims do not present a contribution over the prior art.

Partis et al. (USPN 5144037) discloses N-alkyl 1,5-dideoxy-1,5-imino-D-glucitol as an effective antiviral agent wherein the alkyl is between 6 and 14 atoms long (col. 39, line 25-col. 40, line 30; col. 41, lines 10-15). Accordingly, the proposed technical feature of the claims is not novel and, therefore, is not special. Accordingly, the claims lack a common special technical feature and, therefore, unity of invention.

Groups I-IV and VI-IX lack a common special technical feature because the structure of actives found therein are distinct. For example, the core of Groups I and VI is a non-aryl heterocycle; the core of Groups II and VII is a neutral pyrrole; the core of Groups III and VIII is a pyridinium; and the core of Groups IV and IX is an N-alkylated acyclic amine/aniline. Due to the distinct structure of the compounds of Groups I-IV and VI-IX, the search for any one genus of compounds would not be required for that of any another. Accordingly, restriction is deemed proper.



This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

- (1) single disclosed species of virus;
- (2) a single disclosed species of compound.

If Applicant **elects any of Groups I-IV**, Applicant is ***further required***, in reply to this action, to ***elect a single species of virus*** to which the claims shall be restricted if no generic claim is finally held to be allowable. If Applicant **elects any of Groups I-X**, Applicant is ***still further required***, in reply to this action, to ***elect a single species of compound*** to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following claim(s) are generic: claims 1-23 and 26-37 are generic as to a single disclosed species of compound and claims 1-29 and 32-37 are generic as to a single disclosed species of virus.



The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

The various species of virus are distinct and, therefore, distinctly treatable and searched. Accordingly, this species requirement is considered proper.

The various species of each of the genera of the Groups listed above are vast and possess distinct chemical structures. Accordingly, this species requirement is considered proper.

A telephone call to the attorney is not required where: 1) the restriction requirement is complex, 2) the application is being prosecuted pro se, or 3) the examiner knows from past experience that a telephone election will not be made (MPEP § 812.01). Therefore, since this restriction requirement is considered complex, a call to the attorney for telephone election was not made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim



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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

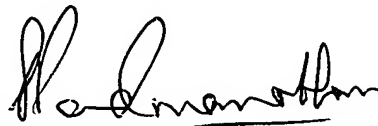
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W Mitchell whose telephone number is 571-272-2907. The examiner can normally be reached on M-F, 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gwm



**SREENI PADMANABHAN**  
**SUPERVISORY PATENT EXAMINER**